

WHAT IS CLAIMED IS:

1. An apparatus for purifying and vaporizing organic molecules contained in a crude material, the apparatus comprising
a non-metallic crucible including an outer surface and an inner surface having a bottom configured to support the crude material;
a baffle comprising a glass wool in the crucible above the bottom; and
a heater configured to heat the crucible and the baffle.

2. The apparatus according to Claim 1, wherein the crucible comprises an electrically insulating material.

3. The apparatus according to Claim 1, wherein the crucible comprises a material selected from the group consisting of alumina, silicon nitride, boron nitride and graphite.

4. The apparatus according to Claim 1, wherein the glass wool comprises a glass selected from the group consisting of borosilicate glasses, aluminosilicate glasses, and fused silica glasses.

5. The apparatus according to Claim 1, wherein
the glass wool comprises glass fibers; and
a mass of the glass fibers in each cm^3 of the glass wool is uniform throughout the glass wool.

6. The apparatus according to Claim 1, wherein the glass wool blocks all lines of sight from the bottom of the crucible to an exterior of the crucible.

7. The apparatus according to Claim 1, wherein
the crucible further comprises an opening to an exterior of the crucible opposite the bottom of the crucible; and
the glass wool is between the opening of the crucible and a point halfway between the opening of the crucible and the bottom of the crucible.

8. The apparatus according to Claim 1, wherein the inner surface includes a support configured to support the glass wool above the bottom of the crucible.

9. The apparatus according to Claim 1, wherein the heater comprises a resistive heater.

10. A film deposition process comprising
placing a crude material including organic molecules directly on a first refractory material;

vaporizing at least a portion of the organic molecules in the crude material to form a first vapor including the organic molecules;

condensing the first vapor on a second refractory material, which comprises a material having a different composition than the first refractory material, to form a condensate including the organic molecules;

vaporizing at least a portion of the organic molecules in the condensate to form a second vapor including the organic molecules; and
depositing the second vapor on a substrate.

11. The film deposition process according to Claim 10, further comprising
providing an apparatus comprising
a non-metallic crucible of the first refractory material including an outer surface and an inner surface, which includes a bottom for supporting the crude material;
a baffle comprising a glass wool of the second refractory material in the crucible above the bottom of the crucible; and
a means for heating the crucible and the baffle.

12. The process according to Claim 10, wherein the organic molecules include light-emitting organic molecules.

13. The process according to Claim 10, wherein the organic molecules include monomers.

14. The process according to Claim 10, wherein the vaporizing at least a portion of the organic molecules in the crude material comprises heating the first refractory material; and the vaporizing at least a portion of the organic molecules in the condensate comprises heating the second refractory material.

15. The process according to Claim 14, wherein the heating the first refractory material and the heating the second refractory material each comprises heating a resistive heater.

16. The process according to Claim 14, wherein the first refractory material and the second refractory material are heated to about the same temperature.

17. The process according to Claim 10, wherein the vaporizing at least a portion of the organic molecules in the crude material and the vaporizing at least a portion of the organic molecules in the condensate are carried out simultaneously.

18. The process according to Claim 10, wherein the vaporizing at least a portion of the organic molecules in the crude material and the vaporizing at least a portion of the organic molecules in the condensate each independently comprises at least one process selected from the group consisting of sublimation and evaporation.

19. The process according to Claim 10, wherein the vaporizing at least a portion of the organic molecules in the crude material and the vaporizing at least a portion of the organic molecules in the condensate are each performed at a pressure of less than 1 atm.

20. A process for purifying organic molecules, the process comprising placing a crude material including organic molecules directly on a first refractory material;

vaporizing at least a portion of the organic molecules in the crude material to form a first vapor including the organic molecules;

condensing the first vapor on a second refractory material, which comprises a material having a different composition than the first refractory material, to form a condensate including the organic molecules; and

vaporizing at least a portion of the organic molecules in the condensate to form a second vapor including the organic molecules.

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